

Name \_\_\_\_\_

## Graph Data

**Essential Question** How can you use a coordinate grid to display data collected in an experiment?

COMMON CORE STANDARD CC.5.G.2

Graph points on the coordinate plane to solve real-world and mathematical problems.

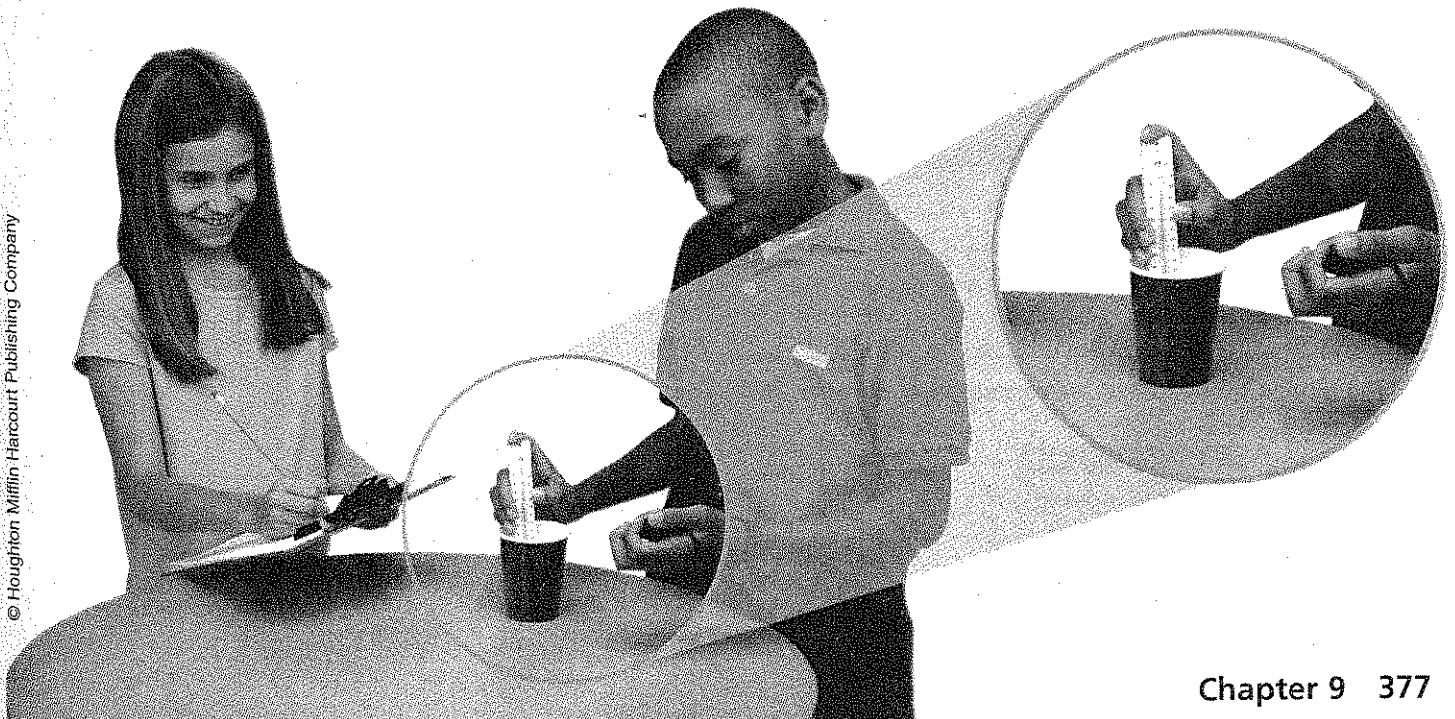
## Investigate

**Materials** ■ paper cup ■ water ■ Fahrenheit thermometer  
■ ice cubes ■ stopwatch

When data is collected, it can be organized in a table.

- A.** Fill the paper cup more than halfway with room-temperature water.
- B.** Place the Fahrenheit thermometer in the water and find its beginning temperature before adding any ice. Record this temperature in the table at 0 seconds.
- C.** Place three cubes of ice in the water and start the stopwatch. Find the temperature every 10 seconds for 60 seconds. Record the temperatures in the table.

Water Temperature	
Time (in seconds)	Temperature (in °F)
0	
10	
20	
30	
40	
50	
60	



## Draw Conclusions .....

1. Explain why you would record the beginning temperature at 0 seconds.

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2. Describe what happens to the temperature of the water in 60 seconds, during the experiment.

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3. **HOT** Analyze your observations of the temperature of the water during the 60 seconds, and explain what you think would happen to the temperature if the experiment continued for 60 seconds longer.

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## Make Connections .....

You can use a coordinate grid to graph and analyze the data you collected in the experiment.

**STEP 1** Write the related pairs of data as ordered pairs.

(0, _____)	(40, _____)
(10, _____)	(50, _____)
(20, _____)	(60, _____)
(30, _____)	

**STEP 2** Construct a coordinate grid and write a title for it. Label each axis.

**STEP 3** Plot a point for each ordered pair.

### Math Talk

#### MATHEMATICAL PRACTICES

What is the ordered pair that you recorded for the data at 10 seconds? Explain what each coordinate represents.

